

**Complete Listing of Claims Pursuant to 37 C.F.R. §1.121**

Pursuant to 37 C.F.R. §1.121 the following is a complete listing of the claims of the present application. In this set of claims, please amend the claims as follows. With the amendments to the aforementioned claims, the following listing of claims will replace all prior versions, and listings, of claims in the application:

1. [previously presented] A method for determining the effectiveness of antidepressant therapy in a depressed individual comprising determining whether there has been a modification of the association of Gs $\alpha$  with components of the plasma membrane or cytoskeleton of cells from peripheral tissues wherein said peripheral tissues are blood cells of the depressed individual and wherein said modification is a redistribution of Gs $\alpha$  from a strongly hydrophobic region of the plasma membrane to a less hydrophobic membrane domain of blood cells of the depressed individual wherein such a modification indicates that said antidepressant therapy is effective.

2. [previously presented] The method of claim 1 wherein the modification produces an enhanced coupling between Gs $\alpha$  and adenylyl cyclase.

3. [cancelled]

4. [original] The method of claim 1 where the modification is a redistribution of Gs $\alpha$  from cell processes and process tips to the cell body.

5. [cancelled]

6. [currently amended]      The method of claim 5 1 wherein the blood cells are erythrocytes.

7. [currently amended]      The method of claim 5 1 wherein the blood cells are leukocytes.

8. [currently amended]      The method of claim 5 1 wherein the blood cells are platelets.

9. [cancelled]

10. [currently amended]      A method for determining the effectiveness of ~~anti-depressant~~ antidepressant therapy in a depressed individual, the method comprising

(a) collecting cells from peripheral tissues from the depressed individual, wherein said cells are blood cells; and

(b) determining whether there has been a redistribution of G $\alpha$  from a strongly hydrophobic region of the plasma membrane to a less hydrophobic membrane domain or cytoskeleton of the cells collected in step (a)

wherein said redistribution is indicative of the effectiveness of the anti-depressant therapy.

11. [currently amended]      The method of claim 10 wherein the ~~modification~~ redistribution produces an enhanced coupling between G $\alpha$  and adenylyl cyclase.

12. [currently amended]      The method of claim 10 wherein the ~~modification~~ redistribution is a redistribution of G $\alpha$  from a strongly hydrophobic region of the plasma membrane to a less hydrophobic membrane domain.

13. [original] The method of claim 10 where the modification is a redistribution of Gs $\alpha$  from cell processes and process tips to the cell body.

14. [cancelled]

15. [currently amended] The method of claim ~~14~~ 10 wherein the blood cells are erythrocytes.

16. [currently amended] The method of claim ~~14~~ 10 wherein the blood cells are leukocytes.

17. [currently amended] The method of claim ~~14~~ 10 wherein the blood cells are platelets.

18. [cancelled]

19. [original] A method for assaying for an agent or agents having antidepressant activity comprising the step of:

(a) contacting said agent or agents with cultured cells expressing Type VI adenylyl cyclase;

(b) determining whether there has been a modification of the association of Gs $\alpha$  with components of the plasma membrane or cytoskeleton of the cells in step (a) via comparison to a control cell culture lacking said agent or agents;

(c) identifying agents having antidepressant activity from a difference in the modification of the association of Gs $\alpha$  with components of the plasma membrane or

cytoskeleton of the cells in step (a), wherein an agent or agents having antidepressant activity increases the modification of the association of Gs $\alpha$  with components of the plasma membrane or cytoskeleton of the cells in step (a).

20. [original] The method of claim 19 wherein the modification is enhanced coupling between Gs $\alpha$  and adenylyl cyclase.

21. [original] The method of claim 19 wherein the modification is a redistribution of Gs $\alpha$  from a strongly hydrophobic region of the plasma membrane to a less hydrophobic membrane domain.

22. [original] The method of claim 19 where the modification is a redistribution of Gs $\alpha$  from cell processes and process tips to the cell body.

23. [currently amended] The method of claim 19 wherein the ~~peripheral tissues~~ cultured cells are blood cells.

24. [original] The method of claim 23 wherein the blood cells are erythrocytes.

25. [original] The method of claim 23 wherein the blood cells are leukocytes.

26. [original] The method of claim 23 wherein the blood cells are platelets.

27. [currently amended] The method of claim 19 wherein the ~~peripheral tissues~~ cultured cells are skin fibroblasts.

28. [original] The method of claim 19 wherein the cultured cells are of neuronal or glial origin.

29. [original] The method of claim 19 wherein the cultured cells are cultured epithelial cells expressing Type VI adenylyl cyclase.

30. [previously presented] A method for assaying for an agent or agents having an activity that modifies the association of Gs $\alpha$  with components of the plasma membrane or cytoskeleton of cells comprising the step of:

(a) contacting said agent or agents with cultured cells expressing Type VI adenylyl cyclase;

(b) determining whether there has been a modification of the association of Gs $\alpha$  with components of the plasma membrane or cytoskeleton of the cells in step (a) via comparison to a control cell culture lacking said agent or agents;

(c) identifying agents having antidepressant activity from a difference in the modification of the association of Gs $\alpha$  with components of the plasma membrane or cytoskeleton of the cells in step (a), wherein an agent or agents having antidepressant activity increases the modification of the association of Gs $\alpha$  with components of the plasma membrane or cytoskeleton of the cells in step (a).

31. [original] The method of claim 30 wherein the modification is enhanced coupling between Gs $\alpha$  and adenylyl cyclase.

32. [original] The method of claim 30 wherein the modification is a redistribution of Gs $\alpha$  from a strongly hydrophobic region of the plasma membrane to a less hydrophobic membrane domain.

33. [original] The method of claim 30 where the modification is a redistribution of Gsa from cell processes and process tips to the cell body.

34. [currently amended] The method of claim 30 wherein the ~~peripheral tissues~~ cultured cells are blood cells.

35. [original] The method of claim 34 wherein the blood cells are erythrocytes.

36. [original] The method of claim 34 wherein the blood cells are leukocytes.

37. [original] The method of claim 34 wherein the blood cells are platelets.

38. [currently amended] The method of claim 30 wherein the ~~peripheral tissues~~ cultured cells are skin fibroblasts.

39. [original] The method of claim 30 wherein the cultured cells are of neuronal or glial origin.

40. [original] The method of claim 30 wherein the cultured cells are cultured epithelial cells expressing Type VI adenylyl cyclase.